



PROGRESS REPORT NO. 162

TO: Robert Tan, U.S. Environmental Protection Agency (EPA) – via Electronic mail
Kathryn Cerise, EPA – via Electronic mail

FROM: Kris McCaig, Teck American Incorporated (TAI)

Cc: Denise Mills, TAI – via Electronic mail
Rob Orr, TAI – via Electronic mail

DATE: January 13, 2020

FILE NO: 01-773180-000

RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study
(RI/FS) - Progress Report No. 162 Month Ending December 2019

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Soil Amendment Technology Evaluation Study (SATES) – TAI continued coordination with the SATES team and Kira Lynch, Superfund Technology Liaison with the Office of Research and Development, Office of Science and Policy during the month. The Ohio State University (OSU) laboratory continued the bench-scale testing of the selected soil amendments through December 2019. The bench tests are being conducted in accordance with the Final Phase II Bench-Scale Treatability Testing Work Plan (May 2019) and Addendum No. 1 (July 2019). Analytical results for the amendment and baseline samples (collected in October 2019 at time point 1) were received by TAI and are pending validation and upload to the UCR database. Time 2 sample collection is scheduled for January 11, 2020. Also during December 2019, TAI and Ramboll worked on a method to include input from EPA and other stakeholders for deciding which amendments will be advanced from the bench-scale to the Phase III field-scale pilot testing.

Baseline Ecological Risk Assessment:

Soil Toxicity Reference Values (TRVs) – On December 16, 2019, TAI submitted a revised draft “Technical Memorandum for Soil Screening Levels for Plants and Invertebrates for the Baseline Ecological Risk Assessment” in response to comments received from EPA on November 15, 2019.

Sediment and Porewater TRVs – A technical conference call was held on December 5, 2019 to discuss presentation materials TAI provided to EPA on November 27, 2019 regarding copper critical accumulation values (follow up on Action Item #6 identified during the Sediment and Porewater TRV workshop TAI and EPA held in March 2019). TAI received an email from EPA on December 19, 2019 with feedback on the discussion and materials presented at the December 5 conference call.

Weight of evidence (WOE) – TAI proceeded with work on WOE during the month of December based on the comments TAI received from EPA on November 20, 2019 on the Draft Preliminary Weight of Evidence Framework Matrix for Benthic Macroinvertebrates, and clarification TAI received based on discussion during the bi-weekly coordination call between TAI and EPA on November 21.

Chemicals of Potential Concern (COPC) Refinement Document – On November 27, 2019 TAI sent an email to EPA for review with some corrections that were needed to the COPC Refinement for Aquatic and Terrestrial Receptors (finalized August 2019), which affected Tables 4-1 and 6-1 and a small amount of text; transmitted with the email. At the time of writing TAI received approval in a letter from EPA on January 10, 2020 to finalize the addendum.

Upland Soil Background Assessment – TAI responded to EPA's second request for supplemental materials to facilitate EPA's review of the Draft Final Technical Memorandum titled "Assessment of Background Concentrations of Metals and Metalloids in Upland Soils," dated September 19, 2019, by providing more plots and the full database and final filtered dataset via email on December 2, 2019.

Phase 3 Sediment Study Sediment Facies Mapping – TAI submitted the draft data summary report and the draft technical memorandum with sediment composition and facies maps for the river reaches outside the Phase 3 areas of interest (AOIs), on December 17, 2019. Both of deliverables integrate data acquired during the September-November 2018 and July 2019 field events.

2019 Phase 3 Sediment Study:

Quality Assurance Project Plan (QAPP) – TAI submitted the Phase 3 Sediment Study Draft QAPP Change Request No. 6 to EPA on December 12, 2019 for review and comment. The change request is regarding porewater extraction methods for the bioassay tests.

Toxicity Identification Evaluation (TIE) Pilot Study – TAI submitted a draft technical memorandum to EPA on December 13, 2019 describing the plan for additional work to help refine the study plan for TIEs in the Phase 3 Sediment Study.

Bioassay Sample Selection and Batching – TAI submitted a draft technical memorandum with bioassay sample selection and batching recommendations to EPA on December 16, 2019.

Backscatter Electron Microscopy (BSEM) – TAI submitted a draft technical memorandum with proposed samples for BSEM analysis to EPA on December 19, 2019.

Porewater Extraction Method Study – TAI sent email to EPA on December 11, 2019 with a brief update on the study and when analytical results were expected, and a second update email on December 18, 2019. At the time of writing, TAI sent an email to EPA on January 9, 2020 with an attached data file and an update on the study.

EPA Draft QAPP for Bioassay Split Sample Analysis – On December 24, 2020, EPA provided to TAI via electronic mail, response to TAI comments (Oct 22, 2019) and a revised Draft QAPP for Phase 3 Sediment Study Bioassay Split Sample Analysis.

Human Health Risk Assessment – TAI received a letter from EPA on November 8, 2019 with a copy of the Draft Upper Columbia River Site-Wide Human Health Risk Assessment (HHRA) for review and comment. A conference call was held with EPA and TAI on December 10, 2019 to discuss TAI's preliminary questions on the draft Site-wide HHRA and EPA provided a response to some of TAI's preliminary questions on December 30, 2019. At the time of writing, a second conference call was held on January 10, 2020 to continue discussion of TAI preliminary questions; some that were from the December 10 call and some that were provided by TAI on January 3, 2020.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.